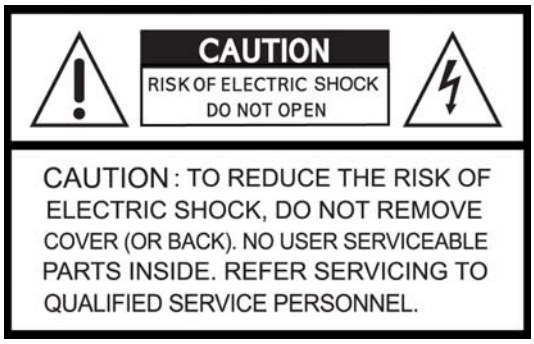
4 CH H.264 Multiplex DVR

User Manual

VER.:1.0, P/N: R040182A/1


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of unprotected “Dangerous voltage" within the product's enclosure that may be strong enough to cause a risk of electric shock.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

NOTE: This equipment has been tested and found to comply with the limits for a class digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at ones own expense.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

All the safety and operating instructions must be read before the unit is operated.

- **Make sure to switch the power off before you install the DVR.**
- **There is the danger of an electric shock if the DVR is opened by an unqualified service engineer or installer.**
- **Avoid using the DVR outside of the reference temperature and humidity indicated in the specification.**
- **Avoid exposing the DVR to violent movement or vibration.**
- **Do not use or store the DVR in direct sunlight or near to any source of heat.**
- **Do not place any object into the holes used for air circulation.**
- **Always use the DVR in a well ventilated location to prevent overheating.**
- **Risk of explosion if battery is replaced by an incorrect type.**
- **Dispose of used batteries according to the instructions.**

TABLE OF CONTENTS

Chapter 1 FEATURES 1
Chapter 2 PACKING DETAIL 2
Chapter 3 LOCATION AND CONTROL 3
3.1 Front Panel Controls 3
3.2 Real Panel Connectors 4
3.3 Remote Controller 5
3.4 Mouse Control 7
3.5 Playback Mode 9
3.6 PTZ Mode 10
Chapter 4 INSTALLATION 12
4.1 System Configuration 12
4.2 Hard Disk Installation 13
Chapter 5 BASIC OPERATION and MENU SETUP 15
5.1 Main Menu Setup 15
5.2 Record Setup 16
5.3 Event Setup 17
5.4 Schedule Setup 19
5.5 Camera Setup 20
5.6 Account Setup 21
5.7 Network Setup 22
5.8 PTZ & RS-485 Setup 25
5.9 System Setup 26
5.10 Utility Setup 30
5.11 Diagnostic 31
Chapter 6 SEARCH & BACKUP 32
6.1 Search Setup 32
6.2 Backup Setup 35
Chapter 7 SPECIFICATION 36
Chapter 8 NETWORK SURVEILLANCE 38
8.1 AP Software Installation and Setup 38
8.2 AP Software Operation 39

The author assumes no responsibility for any errors or omissions that may appear in this document nor does the author make a commitment to update the information herein.

Chapter 1 FEATURES

- H.264 compression ideal for saving HDD space
- Real time live display
- Up to 120FPS @ 360x240 recording (NTSC)
- Live display, record, backup, playback and network access at the same time
- Control methods: front panel, USB mouse, IR remote controller, and client viewer
- Intuitive GUI for easy configuration and menu driven operation
- 1 channel audio recording and playback
- Supports 1 SATA HDDs
- Pan / Tilt / Zoom camera control
- Data backup: USB devices and network (remote-site)
- Event triggered with email notification: motion detection, alarm, and video loss
- Support AP on your PC end for remote operation
- Multi-language OSD

Chapter 2 PACKING DETAIL

1. DVR

2. Client Viewer Software CD

3. User Manual

4. Remote Controller

5. Power Cord

6. Power Adapter

7. Battery

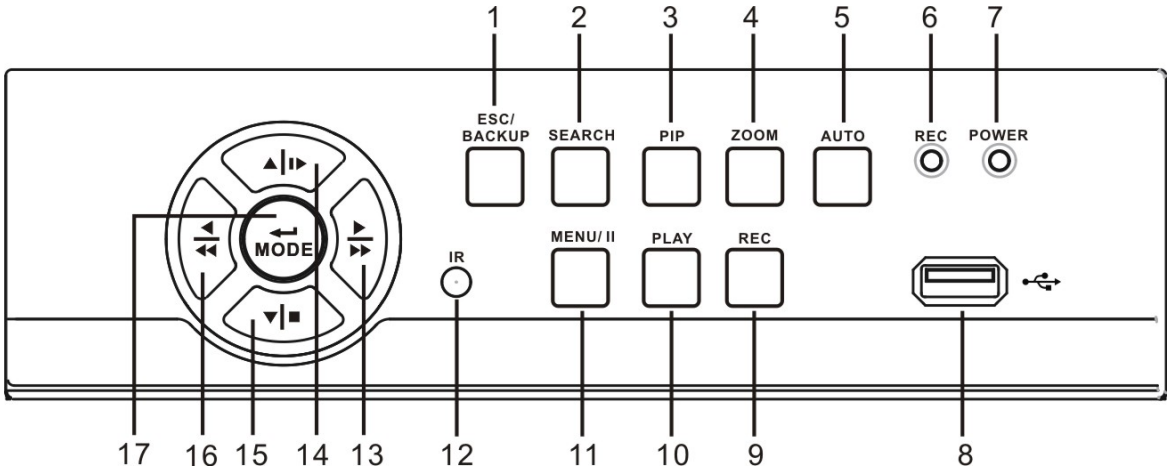
8. SATA Cord

9. HDD Screws

CONTENTS
1. DVR
2. Client Viewer Software CD
3. User Manual
4. Remote Controller
5. Power Cord
6. Power Adapter
7. Battery
8. SATA Cord
9. HDD Screws

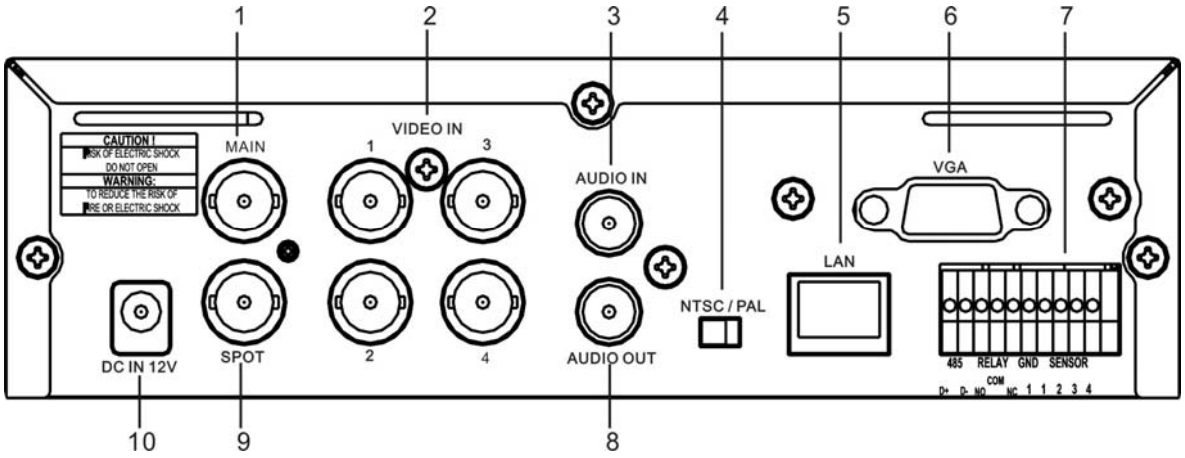
Chapter 3 LOCATION AND CONTROL

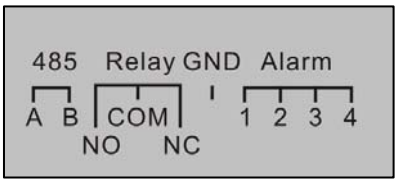
3.1 Front Panel Controls



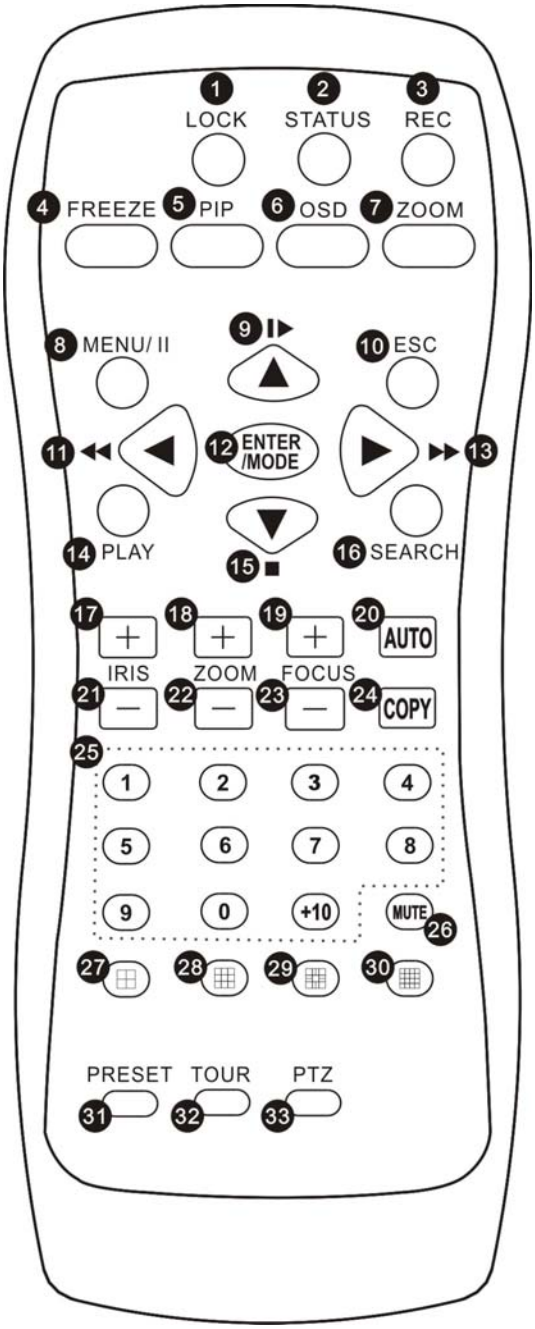
Item		Description
1	ESC/ BACKUP	Exit various functions and menu screen Enter backup seletion menu
2	SEARCH	Enter search menu screen, use Up/ Down button to navigate Press ENTER to access selected item
3	PIP	Turn on picture-in-picture format, use Up/ Down button to navigate Press ENTER to access selected item
4	ZOOM	Enable/ Disable double screen size display. Press ENTER to switch channels.
5	AUTO	Enable auto mode, to skip channels Press MENU to disable auto mode
6	LED DISPLAY - REC	DVR Recording.
7	LED DISPLAY- POWER	DVR Power is on.
8	USB 2.0	The USB 2.0 port can be used to connect USB, mouse and USB storage device.
9	REC	Start/ Stop recording.
10	PLAY	Start playing back.
11	MENU/ PAUSE (MENU/ ▮▮)	Enter menu mode, use Up/ Down button to navigate menu screen. Press to pause playback
12	IR SENSOR	Input sensor for the remote control.
13	RIGHT DIRECTIONAL BUTTON/ FAST (▶▶ / ▶)	Right Directional Button. Fast Forward Playback, Speed: 2x, 4x, 8x, 16x, 32x, 64x.
14	UP DIRECTIONAL BUTTON/ SLOW (▲ / I▶)	Up Directional Button. Slow Forward Playback, Speed: 1/2x, 1/4x, 1/8x, 1/16x.
15	DOWN DIRECTIONAL BUTTON/ STOP (▼ / ■)	Down Directional Button. Stop Playback.
16	LEFT DIRECTIONAL BUTTON/ REWIND (◀ /◀◀)	Left Directional Button. Fast Forward Playback, Speed: 2x, 4x, 8x, 16x, 32x, 64x.
17	ENTER/ MODE (MODE)	Switch to full screen and quad screen.

3.2 Real Panel Connectors



Item		Description
1	MAIN MONITOR	BNC port for the main monitor.
2	VIDEO IN	BNC input ports for cameras, 4 in total.
3	AUDIO IN	RCA input port for an audio signal
4	NTSC／PAL SWITCH	Switch between NTSC and PAL format.
5	LAN	Network port.
6	VGA	Output port for the VGA monitor (option).
7	EXTERNAL I/O	EXTERNAL I/O port (*see below for pin definition*) 
8	AUDIO OUT	RCA output port for an audio signal
9	SPOT MONITOR	BNC port to display full screen image of all installed cameras in sequence.
10	DC 12V	Socket for a DC 12V input.

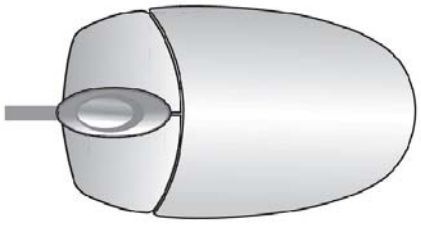
3.3 Remote Controller



Remote Controller – Button Definition	
◯,1 LOCK	Enable Keypad Function.
◯,2 STATUS	Display Status.
◯,3 REC	Start/ Stop Recording.
◯,4 FREEZE	Turn On/ Off Live Display FREZZE Function. Turn On/ Off Screen FREEZE Function.
◯,5 PIP	Enable/ Disable On Picture-In-Picture Format. Use Directional button to navigate the menu item, and press Enter button to enter the menu item.
◯,6 OSD	Turn On/ Off the Screen Display.

◯,7 ZOOM	Enable/ Disable double screen size display. Use Directional button to navigate the screen display, and press Enter button to switch channels.
◯,8 MENU/❚❚	Enable/ Disable Menu. Pause Playback.
◯,9▲ ❚▶	Up Directional Button. Slow Forward Playback, Speed: 1/2x, 1/4x, 1/8x, 1/16x.
◯,10 ESC	Exit Button.
◯,11◀ ◀◀	Left Directional Button. Fast Rewind Playback, Speed: 2x, 4x, 8x, 16x, 32x, 64x.
◯,12 ENTER/ MODE	Switch to Single Screen/ Quad Screen Display.
◯,13▶ ▶▶	Right Directional Button. Fast Forward Playback, Speed: 2x, 4x, 8x, 16x, 32x, 64x.
◯,14 PLAY	Start Playing Back.
◯,15▼ ■	Down Directional Button. Stop Playback.
◯,16 SEARCH	Enter the SEARCH menu. Use Up/ Down Directional Button to navigate the menu item, press Enter button to enter menu item.
◯,17 IRIS +	PTZ Iris-Open.
◯,18 ZOOM +	PTZ Zoom-In.
◯,19 FOCUS +	PTZ Focus-In.
◯,20 AUTO	In AUTO mode, all available channels will be cycled through in full screen.
◯,21 IRIS -	PTZ Iris-Close.
◯,22 ZOOM -	PTZ Zoom-Out.
◯,23 FOCUS -	PTZ Focus-Out.
◯,24 COPY	Enter the COPY menu.
◯,25 CAMERA BUTTONS	Camera Select / Numeric Button. Press [+10] button to select channels.
◯,26 MUTE	Switch to 1-CH Audio Out/ Turn Off Live Audio.
◯,27	Switch to Quad Display.
◯,28	Switch to 9-Channel Display. 4-CH doesn't support this function.
◯,29	Switch to 13-Channel Display. 4-CH doesn't support this function.
◯,30	Switch to 16-Channel Display. 4-CH doesn't support this function.
◯,31 PRESET	Lens PreSet Point Setup Press PRESET button+ 2 numeric numbers to save current lens location PLAY+ Numeric Number to move lens to preset point.
◯,32 TOUR	Activate PTZ Preset Tour.
◯,33 PTZ	Start/ Stop PTZ Control.

3.4 Mouse Control



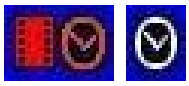
Live Mode

Single Channel Display	Move the cursor to the desired channel and double left click.
Change from Single-Channel to Multi-ChannelDisplay	Double left click

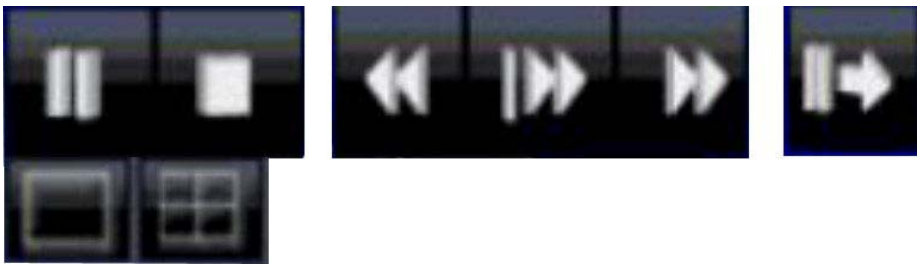
Mouse – Menu Mode	
Enter Menu setup	Right click
Select/ Enter	Left click
Return to Previous Page	Right click

Mouse – Graphic Icons	
	Resting the cursor on this icon will bring up the four (Main Menu/ Search/ Backup/ PTZ) menu icons. MAIN MENU SEARCH SETUP. BACKUP. PTZ CONTROL.
	Turn On/Off recording.
	PLAYBACK
	Resting the cursor on this icon will bring up five (PAUSE/ PIP/ ZOOM/ AUTO SEQ/ LOCK) display icons. PAUSE, to pause LIVE image PIP, picture in picture ZOOM, double the screen size AUTO-sequence LOCK, activate the key lock.

	Full screen display, multiple clicking to switch channels
	Quad display.

Mouse – GUI Hints and Tips	
	Recording is on
	Live Audio is on
	Live Audio is off
	Motion detected on the channel
	Sensor triggered on the channel
	Video loss detected on the channel
	USB device detected
	DVR has been connected onto the Internet.
	Timer recording is on Red：Timer is set and recording has been started White：Timer is set but recording has not yet been started
	AUTO-SEQ is on
2X	2X zoom in is on
	FREZZE is on, screen is frozen
	LOCK is on
	PTZ control is on

3.5 Playback Mode



Under the LIVE mode, the graphical icon [ ] will show up on the upper center of the screen and the operation panel (see below picture) will show up at right lower corner of the screen. You can drag the panel by mouse to place it on any location of your screen.

Playback – Quick Function Icon	
	Press「◀◀ / ◀ 」button to Fast Rewind Speed : 2x, 4x, 8x, 16x, 32x, 64x
	Press「▶▶ / ▶ 」button to Fast Forward Speed : 2x, 4x, 8x, 16x, 32x, 64x
	Press「PLAY」/ 「▮▮」button to Play/ Pause Playback
	「▲ / ▮▶ 」slow playback Speed : 1/2x, 1/4x, 1/8x, 1/16x
	「▼/■ 」stop playback Speed : 1/2x, 1/4x, 1/8x, 1/16x
	Playback channel by channel with snap shot display
	Full screen display
	Quad display

3.6 PTZ Mode

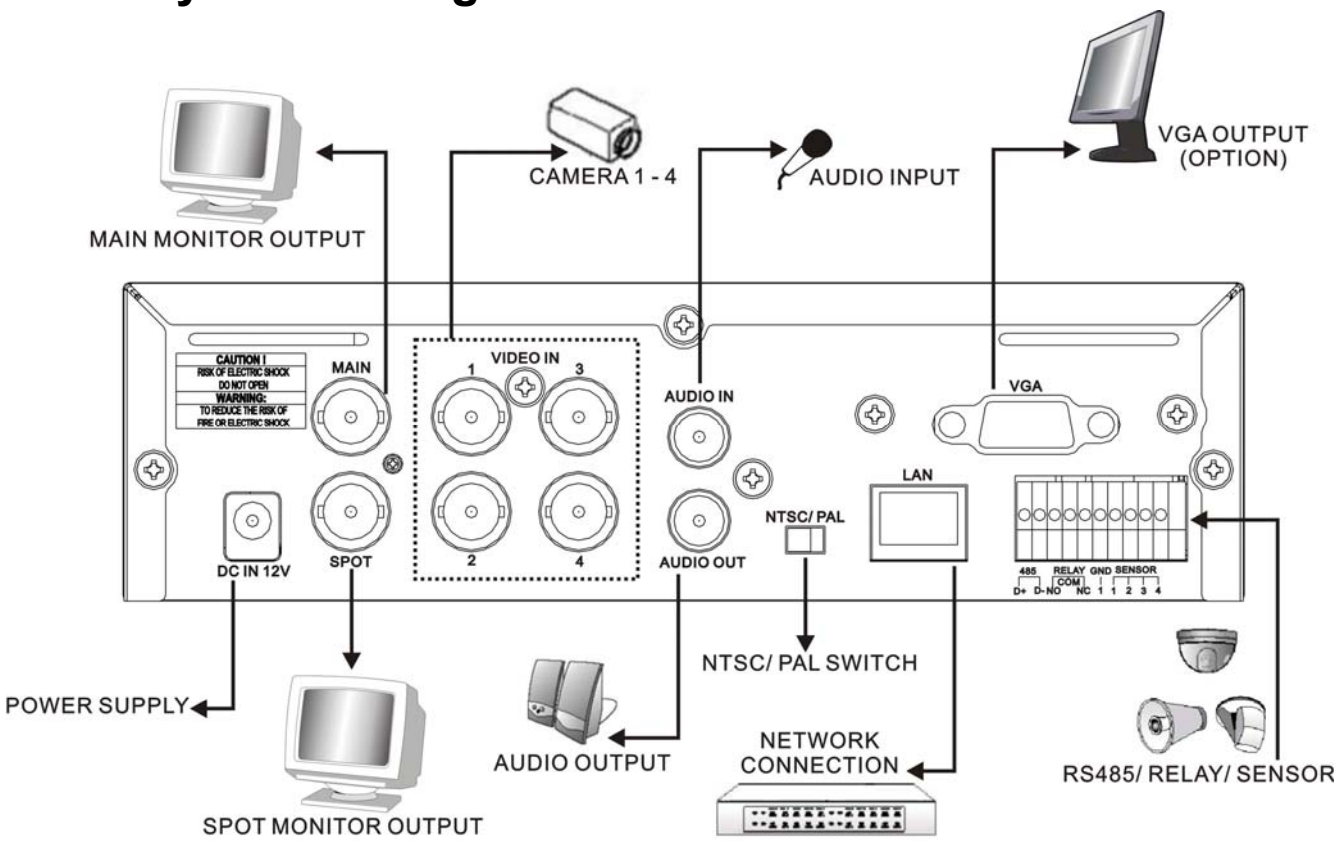
Under LIVE mode, PTZ icon [ ] will appear on the upper left of the screen or be re-located on any place of your screen by dragging the mouse.

PTZ – Remote Controller Control	
▲ / SLOW	Move PTZ up.
▼ / ■	Move PTZ down.
◀◀ / ◀	Move PTZ to the left.
▶▶ / ▶	Move PTZ to the right.
ZOOM +	PTZ zoom-in.
ZOOM -	PTZ zoom-out.
FOCUS +	PTZ focus-in.
FOCUS -	PTZ focus-out.
IRIS +	PTZ iris-open.
IRIS -	PTZ iris-close.
TOUR	Activate PTZ pre-set tour.
PRESET + NUMBER	To save a preset location Press PRESET and a number key. DVR will save the current location.
PLAY + NUMBER	To go to a preset location Press PLAY and a number key. DVR will move to the preset location.
ZOOM	Set current PTZ location as the start of the line-scan.
PIP	Set current PTZ location as the start of the line-scan.
FREEZE	Activate line-scan.

PTZ – Quick Function Icon	
X	Exit PTZ Mode and back to the LIVE mode
1	Preset number N. (1~64)
	Go to preset number N.
	Set current PTZ location at preset number N.
	[TOUR] icon, click to activate preset tour
	Same as [PIP]. Set current PTZ location as the starting point of the line-scan.
	Same as [FREEZE]. Activate line-scan.
	Same as [ZOOM]. Set current PTZ location as the ending point of the line-scan.
	To move PTZ in 360°
+ ZOOM −	PTZ zoom in or PTZ zoom out
+ FOCUS −	PTZ focus in or PTZ focus out.
+ IRIS −	PTZ IRIS open or PTZ IRIS close.
Below functions needs support from specific PTZ. Please check the user manual of your PTZ manufacturer for detail.	
1	AUX 1. [AUTO] ＋「1」
2	AUX 2. [AUTO] ＋「2」
3	AUX 3. [AUTO] ＋「3」
4	AUX 4. [AUTO] ＋「4」
5	AUX 5. [AUTO] ＋「5」
6	AUX 6. [AUTO] ＋「6」
7	AUX 7. [AUTO] ＋「7」
8	AUX 8. [AUTO] ＋「1」
	[Backup] icon, click to customized function.

Chapter 4 INSTALLATION

4.1 System Configuration

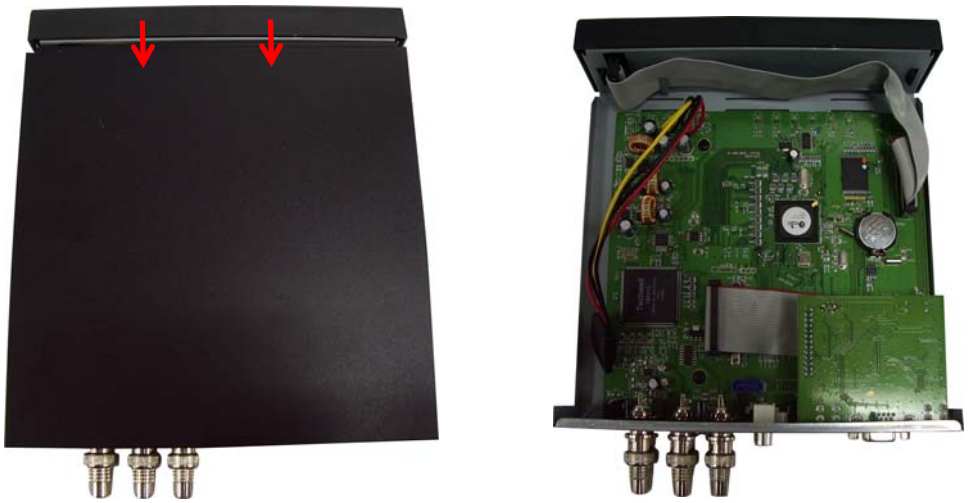


4.2 Hard Disk Installation

Step 1 : Remove the 3 screws from DVR as cycled below (PIC 1).

(PIC 1)

Step 2 : Remove the front cover from DVR as indicated by the arrow (PIC 2).



(PIC 2)

Step 3 : Place the HDD on the HDD plate and connect the power and the SATA cables (PIC 3).

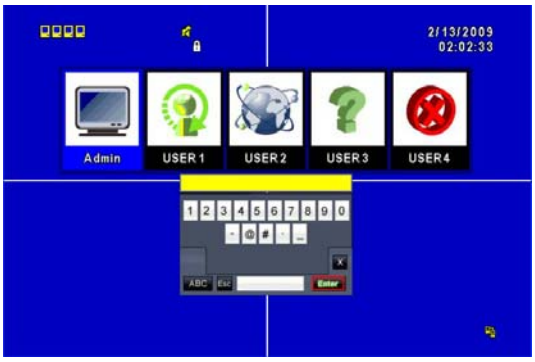
(PIC 3)

Step 4 : Screw the bottom of the DVR as indicated as cycled (PIC 4).

(PIC 4)

Chapter 5 BASIC OPERATION and MENU SETUP

5.1 Main Menu Setup



To enter the main menu and setup the DVR, please log-in account and enter user password. The default password of the administrator is “123456”. Please refer to “Account Setup” for related setup of other log-in users.

Main Menu – Mouse Control	
⇧	Switch between capital and small letters.
.?123 / ABC	Switch between numbers and letters.
Esc	Press to cancel the setup, and re-choose the login account.
X	Delete the last character.
Enter	Enter to identify the password. It will enter the setup menu if the password is verified.

Main Menu – Remote Control ler and Front Pannel Control	
◄ ►	Switch to different options under one item
▲ ▼	Switch to different items
MENU	Save setup and back to LIVE mode
ESC	Back to Upper level of the menu
ENTER	Enter the menu, or display virtual keyboard

5.2 Record Setup

Item	Description
HDD FULL	Select STOP to stop recording or OVERWRITE to reuse the HDD when HDD is full. **[Stop]**：Stop Recording **[Overwrite]**：Start to overwrite beginning from the oldest data of HDD, and continue to record.
Schedule - Record Normal	Enable/ Disable normal recording
Schedule – Record Motion	Enable/ Disable recording while Motion is detected
Schedule – Record Sensor	Enable/ Disable recording while Sensor is triggered
Pre-Alarm Record	Enable/ Disable pre-event recording while motion or sensor is triggered but not in the recording mode. This option decides if save the pre-recording time 10 seconds data or not.
Audio Record	Enable/ Disable Audio recording.
Video Preservation	Information stored within the HDD is preserved for only a specified length of time.
Quality & Frame Rate Setup…	Setup the quality and frame rate for each channel under normal recording and event recording type.

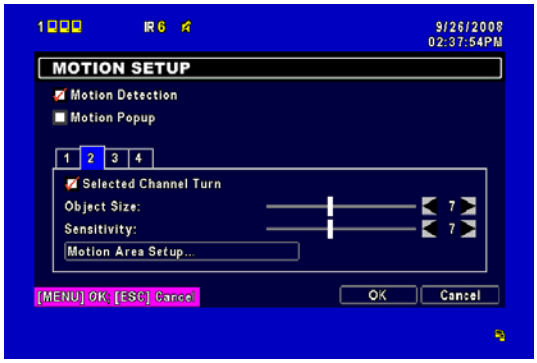
5.2.1 Quality & Frame Rate Setup

Item	Description
Resolution	Choose record resolution, this value will be used by all channels.
Record Type	You can setup quality and FPS separately for record type.
No.	Check/ uncheck the box will enable/ disable recording of that channel.
Quality	Choose from Lowest/ Low/ Normal/ High/ Highest.
FPS	Choose recording frame rate.

5.3 Event Setup

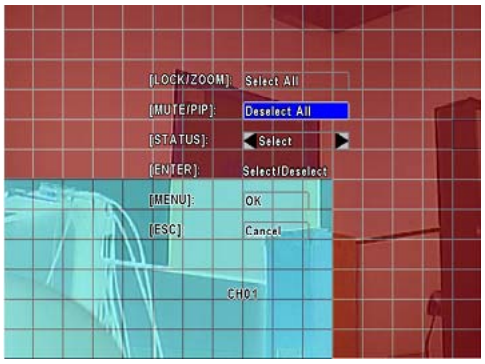
Item	Description
Alarm Duration (Seconds)	Set up alarm duration in seconds (can not be set to 0 seconds). Drag the white bar or press 2 to adjust value.
Motion Setup	Enter to set up motion detection
Sensor Setup	Enter to set up sensor detection

5.3.1 Motion Setup



Item	Description
Motion Detection	Check the box to Enable/ Disable Motion Detection for all channels.
Motion Popup	Check the box to Enable/ Disable popup screen function for all channels. When motion is detected in LIVE mode, the detected channel image will popup in full screen display.
1 2 3 4	You can setup independently for each channel.
Selected Channel Turn	Check the box to Enable/ Disable motion detection for each channel.
Object Size	Drag the white bar or press 2 to set up Object Size from value 1 to 15 for each channel. The lower value you set the higher sensitivity it will be.
Sensitivity	Drag the white bar or press 2 to set up Sensitivity from value 1 to 15 for each channel. The lower value you set the higher sensitivity it will be
Motion Area Setup	Enter to setup motion detection area

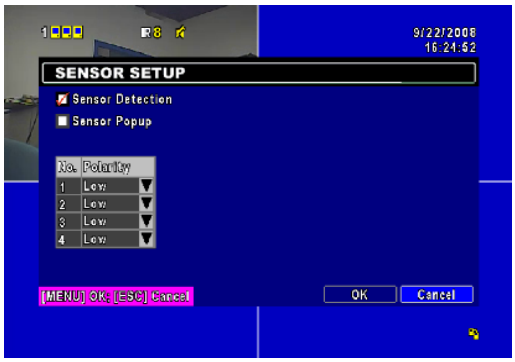
5.3.1.1 Motion Area Setup



There are 16x12 partitions in motion detection area. Under initializing status, motion detection area is in the entire screen. Red colored area is detected; yet the undetected area is transparent. It is purple while network is connected.

Item	Description
LOCK / ZOOM	Press LOCK / ZOOM to select the entire screen as detection area.
MUTE / PIP	Press MUTE / PIP to deselect the entire screen as detection area.
STATUS	Switch between “select” and “deselect” for cursor-dragging function
ENTER	Press to activate selected area with assigned status
MENU	Press to save the setup and leave
ESC	Press to cancel the setup and leave

5.3.2 Sensor Setup



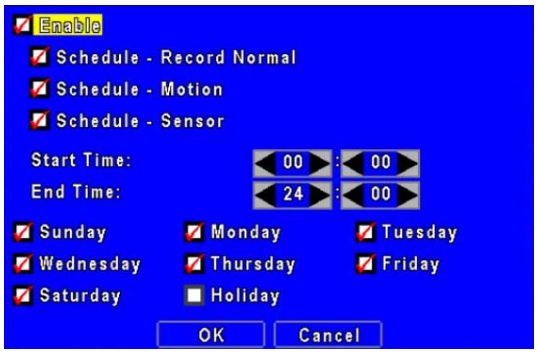
Item	Description
Sensor Detection	Check the box to Enable/Disable sensor detection for all channels.
Sensor Popup	Check the box to Enable/Disable popup screen function for all channels. When Sensor is detected in LIVE mode, the detected channel image will pop up in full screen display.
Sensor Polarity	Click or press ▼ to select between HIGH/ LOW voltage for triggering sensor detection or OFF to turn off polarity for each channel **Low** Polarity：Sensor has not been triggered. When connected, sensor will be turned on. **High** Polarity：Sensor has been triggered. When connected, sensor status will be turned off. **Off**：Sensor is deactivated, and will not be turned on/off.

5.4 Schedule Setup

Apart from manual recording, you can also setup the recording time by weeks and schedule recordings include: normal, motion detection, and sensor detection.

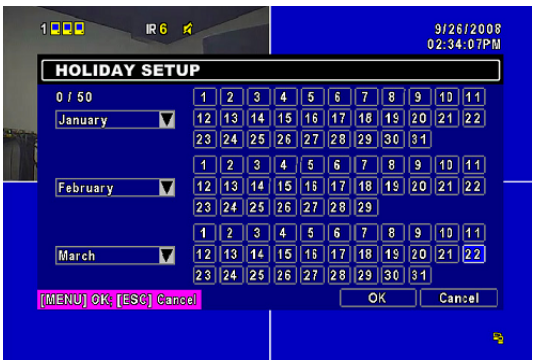
Item	Description
Page	Click or press ▼ to select Page. Each page provides 10 schedules for setup. 5 pages in total.
Holiday Setup	Enter to setup holiday, maximum up to 50 days.
View Event Setup	View Normal/ Motion / Sensor Setup.

5.4.1 Schdule Record Setup



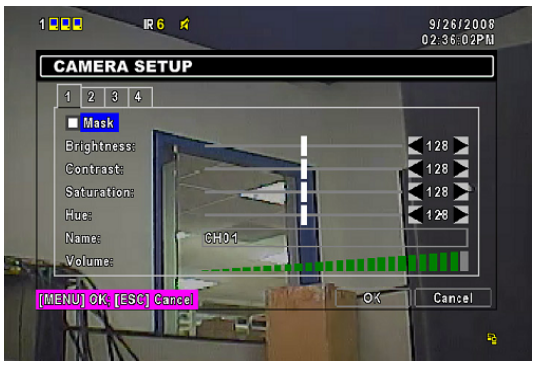
Click on the time icon on the left side. The setup menu will be displayed. You can have detail setup by dates, time and event.

5.4.2 Holiday Setup



Since holidays are different between countries and regions, you can setup the holiday of your location accordingly (Maximum Setup: 50).

5.5 Camera Setup

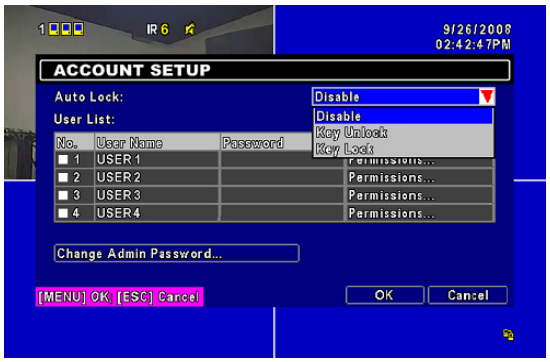


Item	Description
1 2 3 4	You can setup independently for each channel.
Mask	Check the box to Enable/ Disable mask function for LIVE mode
Brightness	Drag the white bar or press 2 to adjust Brightness of your camera from value 1 to 255. The default value is 128.
Contrast	Drag the white bar or press 2 to adjust Contrast of your camera from value 1 to 255. The default value is 128.
Saturation	Drag the white bar or press 2 to adjust Saturation of your camera from value 1 to 255. The default value is 128.
Hue	Drag the white bar or press 2 to adjust Hue of your camera from value 1 to 255. The default value is 128. (**This function is ineffective in PAL system**).
Name	Set up name of each channel.
Volume	Select to adjust audio volume for CH1 to CH 4 under LIVE mode and recording mode.

NOTE!

Network LIVE videos are unable to be switched off when applying Mask function. To avoid network LIVE videos, please use User permission mask playback features (Administrator has no such permissions).

5.6 Account Setup



The Account Setup menu is used to provide role-based permission independently for each user (maximum of 4 users) to access the DVR over network. The default admin account is [admin] and password is “123456”.

Item	Description		
Auto Lock	After one minute without any action, the DVR will switch to *LIVE* mode automatically. Auto lock can function differently according to the setting below.		
	Function / **Setting**	**Auto Logout**	**Key Lock**
	Key lock	○	○
	Key unlock	○	×
	Disable	×	×
No.	Check to activate the user’s account.		
Password	Enter to set up password for each user. Password must be at least 8 characters, including letters and numbers. Resetting Adiminstartor password must also be at least 8 digits.		
Permissions	Enter to setup Permissions for each user.		
Change Admin Password	Enter to change administrator’s password.		

NOTE!

1: When logged out automatically, you will have to operate in limited authority such as operations like: Freeze the screen, Picture in picture, Zoom in/ out, switch between channels…etc. If you need to enter the Setup menu, Search menu, backup menu, Record…etc, user's account and password are required.

2: When the key lock is activated automatically, remote control and mouse may not function unless entering verified password, remote-site will not be able to operate all the features (including toolbar).

3: [○] : Enable the function, [×] : Disable the function.

5.6.1 Permission Setup

The Account Setup is set to provide individual user (maximum of 4 users) role-based permissions, including access to Setup menu, Network operation, PTZ function, Playback, Utility, Backup and Mask on specific channels while playing back.

5.7 Network Setup

Item	Description
Connect type	Setup mode for network connection: **DHCP**、**LAN**、**ADSL**.
HTTP Setup	Enter to set up HTTP for remote access into DVR.
DDNS Setup	Enter to Enable/ Disable DDNS function and set up.
Mail Setup	Enter to Enable/ Disable Email notification and setup.

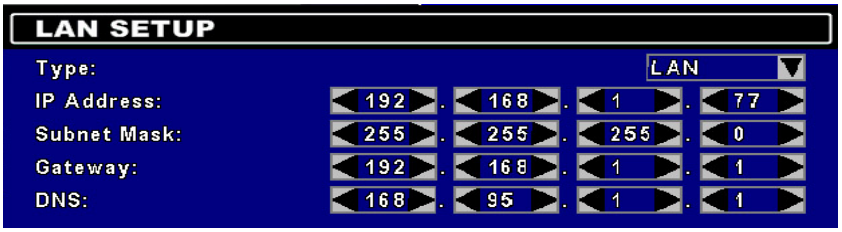
5.7.1 Networking Setup

The DVR supports DHCP, LAN and ADSL access for network connection.

5.7.1.1 DHCP

If the DHCP option is used for DVR network connection, an IP address is assigned by the DHCP server automatically.

5.7.1.2 LAN

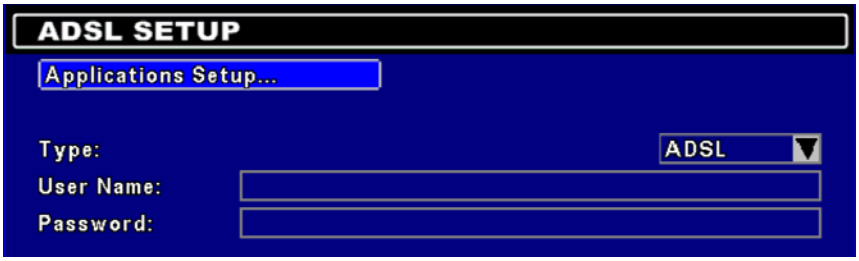


Select LAN for network connection, the following information is required.

Item	Description
IP Address	Enter IP address provided by ISP
Subnet Mask	Enter IP address of Subnet Mask provided by ISP
Gateway	Enter IP address of Gate way provided by ISP
DNS	Enter DNS address provided by ISP. (Note: The correct DNS address must be entered for DDNS function).

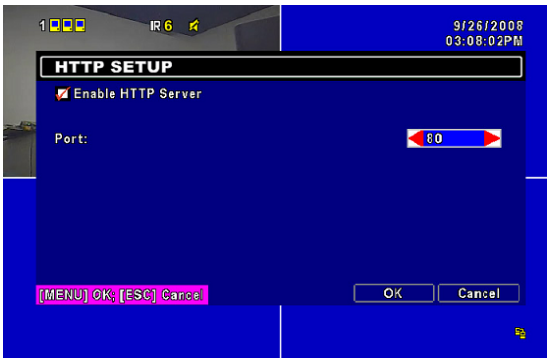
5.7.1.3 ADSL

Select ADSL for network connection, the following information is required.



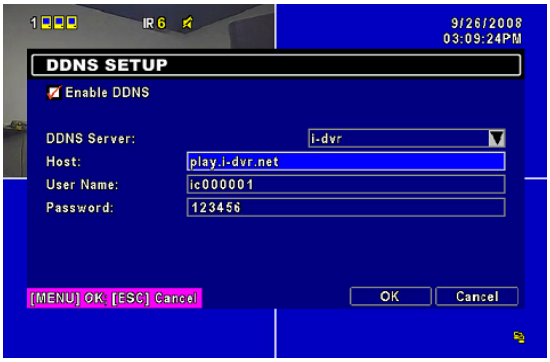
Item	Description
User Name	Enter user name provided by ISP
Password	Enter password provided by ISP

5.7.2 HTTP Setup



Item	Description
Enable HTTP Server	Check to enable HTTP server. Users can remotely access into the DVR over the network if the HTTP function is activated.
Port	Enter a valid port value from 1 up to 65000. The default value is 80.

5.7.3 DDNS Setup



Item	Description
Enable DDNS	Check/ Uncheck to Enable/ Disable DDNS function.
DDNS Server	Enter the registered SMTP Server: **DYNDNS.ORG, NO-IP.ORG, CUSTOM.COM**
SMTP Server	Enter the registered SMTP Server.
User Name	Enter user name.
Password	Enter password.

5.7.4 Mail Setup

E-mail can be used as a form of notification when an event occurs (VLOSS, MOTION, and SENSOR).

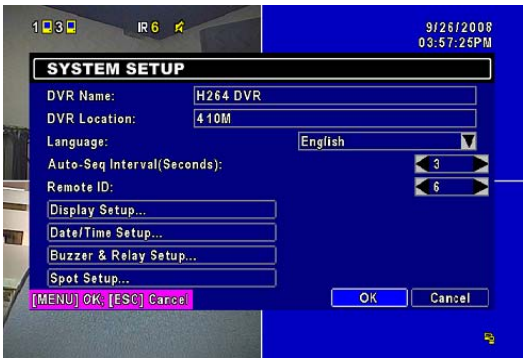
Item	Description
Enable E-mail Notification	Check the box to enable/disable E-mail Notification function.
SMTP Server	Enter to set up SMTP Server name.
User Name	Enter to set up User Name.
Password	Enter to set up Password.
Sender E-mail	Enter to set up e-mail address of receivers.
E-mail address	Enter to set up e-mail addresses for up to 10 receivers individually.
Trigger Event	Enter to select events to send out E-mail notifications when below circumstances happen: Motion, Sensor and Vloss (Video Loss).

5.8 PTZ & RS-485 Setup

The DVR allows users to control PTZ functions of your camera. To enable PTZ function, the 485 cable should be connected to the RS-485 port of DVR.

Item	Description
Enable PTZ	Click the box to Enable/Disable PTZ function for each channel.
Protocol	Set up the protocol of PTZ cam. The supported protocol are **PELCO-P, PELCO-D, and KND**
PTZ ID	Click or press 2Ɪ☺ to set up PTZ ID. The valid ID value is from 1 to 64.
Baud Rate	Select Baud Rate for PTZ from 2400、4800、9600

5.9 System Setup

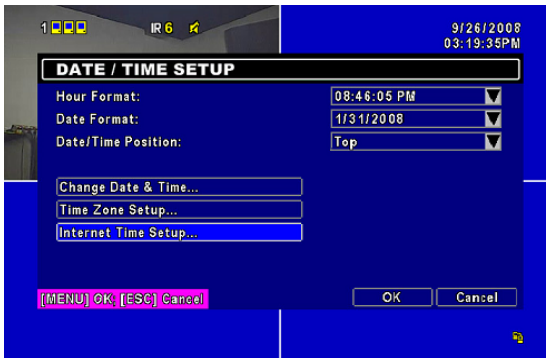


Item	Description
DVR Name	The name of DVR will be shown when users login from remote access.
DVR Location	The location of DVR will be shown when users login from remote access
Language	Click or press ▼ to select OSD language.
Auto-Seq Interval (Seconds)	Click or press 2Ɪ☺ to set up duration time in seconds for the interval between channels under Auto-Seq mode.
Remote ID	Preserved Function.
Display Setup	Enter to set up Display
Date/Time Setup	Enter to set up Date/Time
Buzzer & Relay Setup	Enter to set up Buzzer & Relay
Spot Setup	Enter to set up Spot

5.9.1 Display Setup

Item	Description
OSD	Turn On / Off OSD display
DVR Status	Turn On / Off DVR illustration and record status display
Date/Time	Turn On / Off date and time display
Channel Name	Turn On / Off channel name display
Border Set	Set up the color of border in LIVE , PLAYBACK mode.（black, dark grey, light grey, and white）

5.9.2 Date/ Time Setup



Item	Description
Hour Format	12HOURS/ 24HOURS
Date Format	MM-DD-YY/DD-MM-YY/YY-MM-DD
Date/Time Position	Choose the position of Time and Date display
Change Date & Time	Setup time and date of DVR
Time Zone Setup	Set up GMT and Daylight Saving Time.
Internet Time Setup	Setup automatic synchronization with internet server

5.9.2.1 Change Date & Time

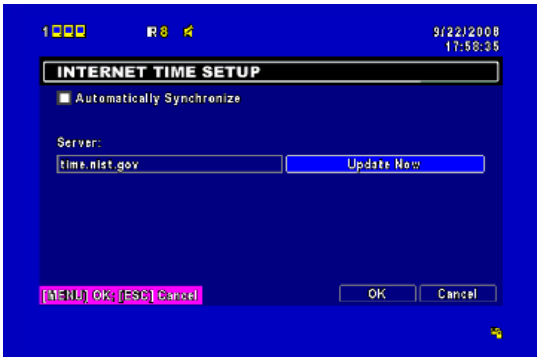
Users are allowed to setup date and time of the DVR.

5.9.2.2 Time Zone Setup

In time zone setup, users can change the time zone and activate Daylight Saving Time function according to your DVR location.

Item	Description
Select Time Zone	Enter to modify GMT from GMT- 13 to GMT+ 13
Daylight Saving Time	Turn On/ Off Daylight Saving Time

5.9.2.3 Internet Time Setup



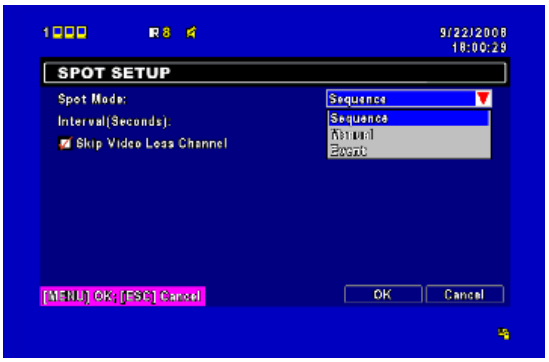
Synchronize your DVR time with internet time server.

Item	Description
Automatic Synchronization	Check to enable DVR automatic synchronization function. Select this option to enable the function, DVR will automatically synchronize the time upon rebooting or by every 24 hours after booting.
Update Now	Date and Time show on DVR will immediately correspond with those in internet server.

5.9.3 Buzzer & Relay Setup

Item	Description
KEY TONE	Enable/ Disable keystrokes.
Relay Switch Connection	Set relay signal to be Normal Close (N.C.) or Normal Open (N.O.).
Buzzer Duration	Set up the duration from 1~999 seconds.
ALARM BUZZER	Enable/ Disable buzzer operation when the alarm is triggered for sensor, motion and vloss (Video Loss).
ALARM RELAY	Enable/ Disable the signal to be sent to the RELAY OUT blocks when the alarm is triggered for sensor, motion and vloss.

5.9.4 Spot Setup



The DVR has two modes of video output; one is the main video output, the other is spot video output. SPOT setup is for controlling orders of channels that the system cycles through in SPOT mode. User can monitor every channel in the SPOT mode.

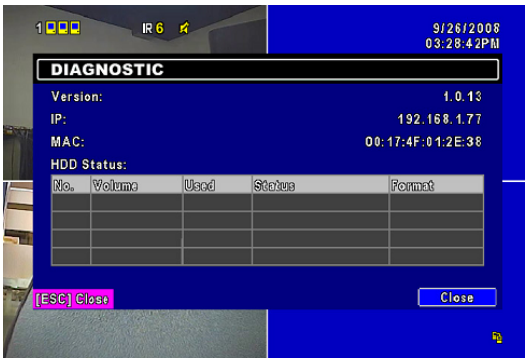
Item	Description
SPOT MODE	Channels display in spot for three different modes: **MANUAL:** Select channels to display manually, select channels will be transfered to the SPOT monitor. **SEQUENCE:** Auto-sequence for all channels in order. **EVENT:** Display channels with event occurred.
Interval (Seconds)	The duration interval time between channels is in seconds under SPOT mode (can not be set to 0 seconds).
Skip Video Loss Channel	Whether to skip channels without video signal.

5.10 Utility Setup

Item	Description
HDD Initialization	Select to enter hard disk initialization menu. **Please stop recording before entering this menu.** Enter the menu, system will show all the data (model/ volume) of HDD that is installed in the DVR. Check the HDD you'd like to initialize, then press "Start". HDD initialization is successful when the status shows "Succeed".
USB Initialization	Clean up all data on USB. Enter USB initialization and press "YES" to clean up all data on your USB. The initialization is done when it shows "Succeed".
System Recovery	Restore system default values.
Reset System Events	Reset all the recording events in the DVR.
Copy Setup to USB	Copy configuration to a USB device. There will be a file named "sdvr.config" on your USB.
Download Setup from USB	Download configuration from a USB device into DVR.
Upgrade	Upgrade DVR through USB. Please stop recording and backup setup configuration before upgrading. **System will reboot automatically when the upgrade is completed.**

NOTE！ DO NOT TURN OFF POWER OR UNPLUG USB DEVICE DURING THE UPGRADE as it may cause incomplete firmware upgrade and damage to the DVR.

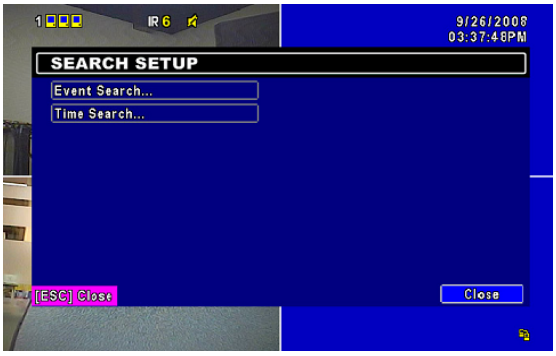
5.11 Diagnostic



Item	Description
Version	The current firmware version of DVR
IP Address	The connected IP address of DVR. If disconnected from network, the screen will display" NETWORK DISCONNECT".
MAC Address	MAC Address of DVR
HDD Volume	The capacity of HDD
HDD Used Rate	Percentage of space used on HDD.
HDD Status	Shows HDD status. **USING** means the HDD is now used for recording. **GOOD/ BAD** means the HDD has a known/ unknown format for the DVR. (Note: Please initialize your newly-installed HDD before using it, otherwise it can be recognized as BAD by the DVR).
Format Time	The latest format time of HDD

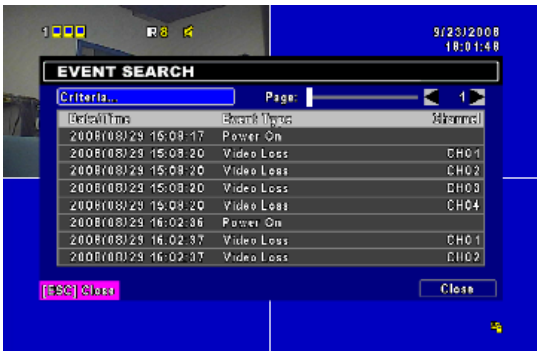
Chapter 6 SEARCH & BACKUP

6.1 Search Setup



Item	Description
Event Search	Press to enter event search menu.
Time Search	Press to enter time search menu.
Select Playback Channels 1~4	☑ Check the desired channels to playback; ☐ uncheck channels to show LIVE video images.

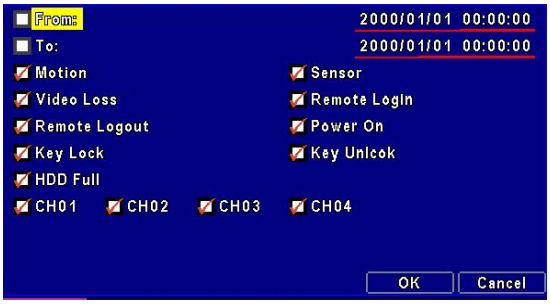
6.1.1 Event Search



The DVR automatically records events with type, time and channel information included. If there is recording data for an event, a yellow signal icon will be shown on the left side of time information. Rest your cursor under the line and press “enter”, or left click your mouse to playback the recording data.

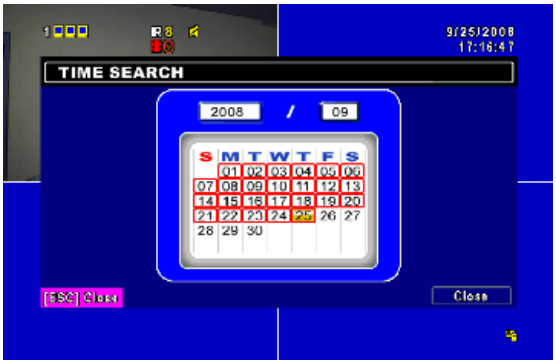
Item	Description
Criteria	Setup conditions of the event search function
Page	Convert pages of events
Date/Time	Date/ time when the event occurred.
Event Type	Event type, defined as following: **VLOSS** : Video Loss **MOTION** : Motion Detected **SENSOR** : Sensor Detected **REMOTE IN** : User log-in over the network **REMOTE OUT** : User log-out over the network **POWER ON** : System Rebooting **KEY LOCK** : System key is locked **KEY UNLOCK** : System key is unlocked **HDD FULL** : HDD is FULL
Channel	The channel where the event occurred.

6.1.1.1 Criteria Setup for Event Search

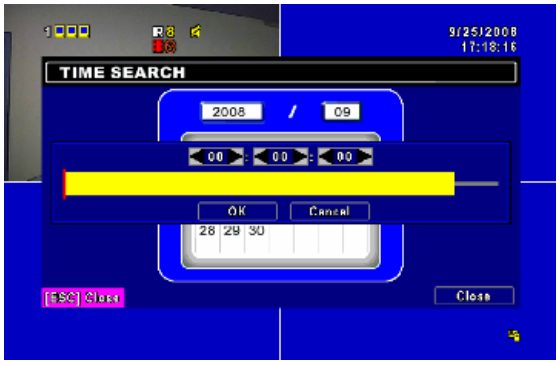


The amount of events can be numerous. Therefore, you can facilitate event sorting by setting up “criteria”. Setup “start time” and “end time” for each event search, then the search result will be limited to this specific period of time. Only events and channels that are ☑ checked will be sorted in event search as well.

6.1.2 Time Search



TIME SEARCH, you can search for a specific time of the recording data to playback. Dates with recording are shown by data marked with a red square [□]. System will start playing back according to the date that you've selected. Calendar will be shown by using mouse to click on "year" and "month".



Click "date" to display recording time of that specific date with time bar. You can change time (hour/ minute/ second) or click on a specific time of time bar by mouse then press "**YES**". DVR will playback the selected recording data.

6.2 Backup Setup

User can back-up any segment of recorded data in a specified time frame. To do so, connect a USB to the DVR. The format of backup file is *IRF* file and can be played by "DVRemoteDesktop.exe" or "iCMS".

Item	Description
From	Backup file starting time
To	Backup file ending time
Device	Select USB as the backup device
Free Space	The available space in your backup device
Refresh	Recalculate the available space of backup device
Calculate	Calculate the size of backup file
Start	Start backup operation. **Be sure to calculate the size of backup file BEFORE operating backup.**

NOTE！ Do not unplug the USB device or turn off the DVR during the backup process to avoid unrecoverable error. When backup is completed, you need to re-plug in order to insure proper function.

Chapter 7 SPECIFICATION

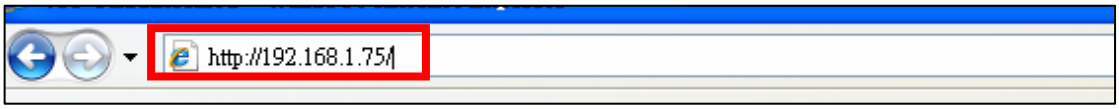
VIDEO	VIDEO SYSTEM		NTSC/ PAL Selectable
	INPUT		4CH BNC
	LOOP		N/A
	VIDEO OUTPUT		1CH, BNC
	SPOT OUTPUT		1CH, BNC
	VGA OUTPUT		Optional
AUDIO	INPUT		1CH, RCA
	OUTPUT		1CH, RCA
TERMINAL	SENSOR		4 Inputs/ 1 Outputs
	RS-485 INTERFACE		Pan/ Tilt/ Zoom Camera
CONTROL	MOUSE		USB Mouse
	IR CONTROLLER		YES
STORAGE	DEVICE		Supports SATA Hard Disk x1
	DVD WRITER		N/A
DISPLAY	DIVISION		1,4
	ZOOM		2X
	OSD		Graphic OSD
RECORDING	COMPRESSION		H.264
	RESOLUTION		720x480, 720x240, 360x240 (NTSC) 720x576, 720x288, 360x288 (PAL)
	FRAME RATE	NTSC	30, 60, 120FPS
		PAL	25, 50, 100FPS
	QUALITY		Highest/ High/ Normal/ Low/ Lowest
	RECORD MODE		Manual, Schedule, Event (Motion Detection, Sensor, Video Loss)
	MOTION DETECTION		User selectable motion detection area for each camera individually
			Sensitivity: 5 levels
	PRE-ALARM		16 MB
	POST-ALARM		16 MB
	WATERMARK		N/A
PLAYBACK	SEARCH MODE		Time, Event
	SPEED		Normal, REW&FF[2x/4x/8x/16x/32x/64x], Picture to Picture, Pause
	INTERNAL		HDD
	EXTERNAL		N/A

NETWORK	COMPRESSION	H.264
	INTERFACE	Internal Exploerer Browser
	SERVICE	TCP/ IP, SMTP, HTTP, DHCP, DDNS, PPPoE
BACKUP	INTERNAL	N/A
	EXTERNAL	USB 2.0 (1 Port at Front Panel) : USB Flash Driver
	NETWORK	YES
	BACKUP FILE	H.264 Compression
MONITORING	Software Watchdog	
RECOVERY	Auto-Reboot By Watchdog	
FIREWARE UPGRADE	USB 2.0 Port (1 Port at Front Panel)	
MULTI-LANGUAGE	English/ Traditional Chinese/ Italian/ Japanese/ Portuguese/ Spanish/ German/ French/ Russian/ Simplified Chinese/ Polish	
DIMENSION	188mm (W) x 54mm (H) x209mm (D)	
POWER SOURCE	DC 12V	

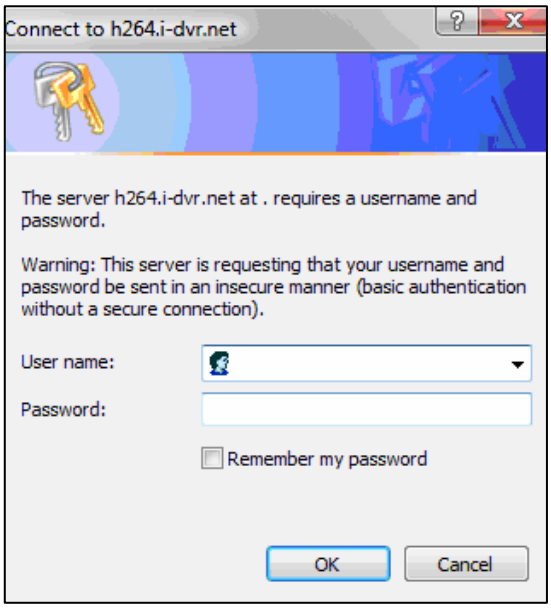
Chapter 8 NETWORK SURVEILLANCE

8.1 AP Software Installation and Setup

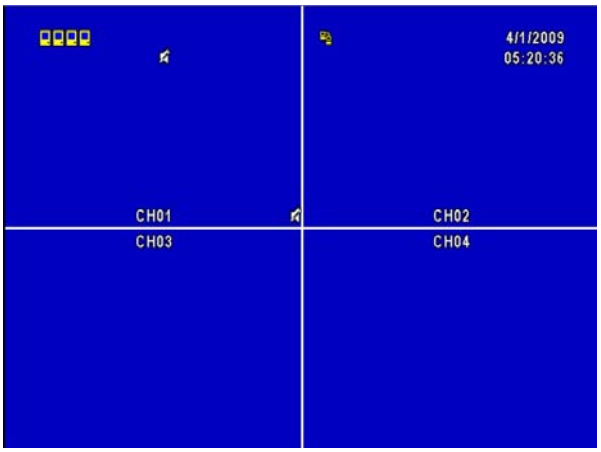
Step 1：Enter the IP address of the DVR in the IE browser.



Step 2: A window will pop-up. Please enter the user name and password. Default user name is **admin** and password is **123456**. Other related setup about user account and password, please refer to **"5.6 Account Setup**".

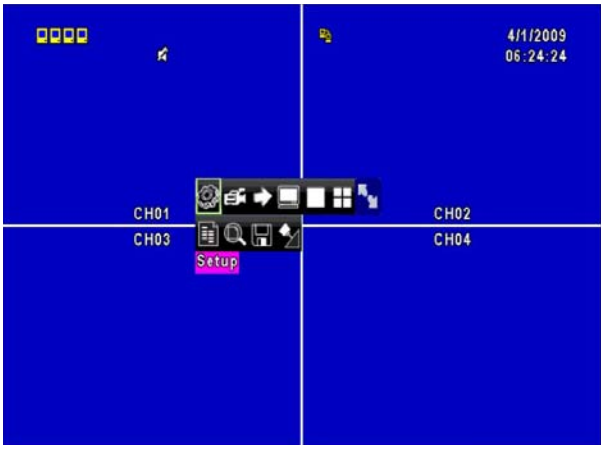

Connect to h264.i-dvr.net
The server h264.i-dvr.net at . requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name:
Password:
Remember my password
OK
Cancel

Step 3: You've logged into the DVR



8.2 AP Software Operation

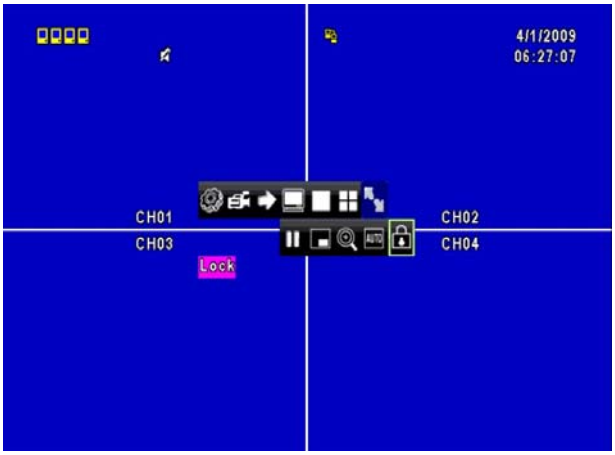
User-friendly operation, DVR remote interface provides the DVR with the same local client interface.



8.2.1 Remote Record

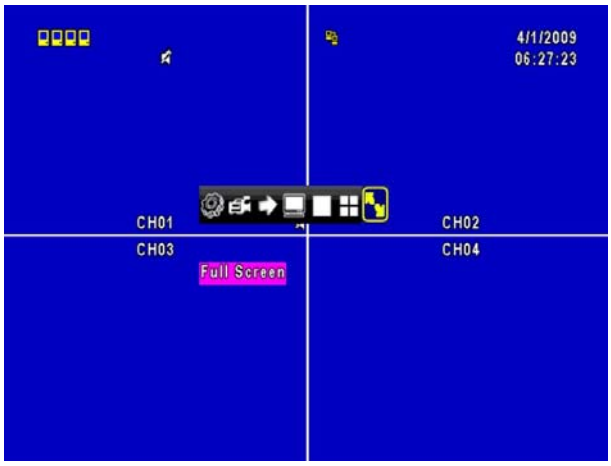
Click Record icon to select between 3 recording options (Record On/ Off, Record to Local…, Screen Snapshot [F2]). Record switch can activate DVR client to record, record to local client can be backed up onto the PC, may also use snapshot to capture video image onto the PC.

8.2.2 Lock



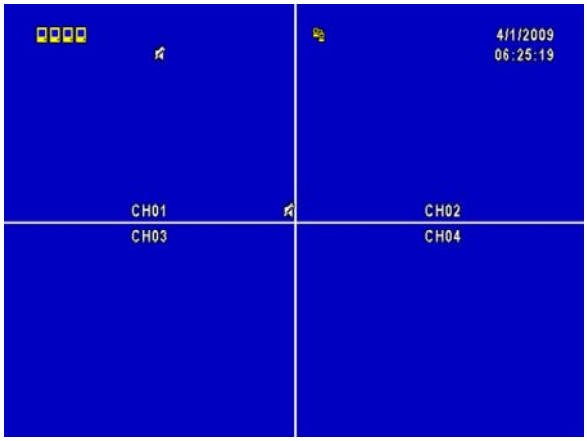
Click Lock icon to lock remote-site function and to unlock, account and password must be entered all over again.

8.2.3 Full Screen



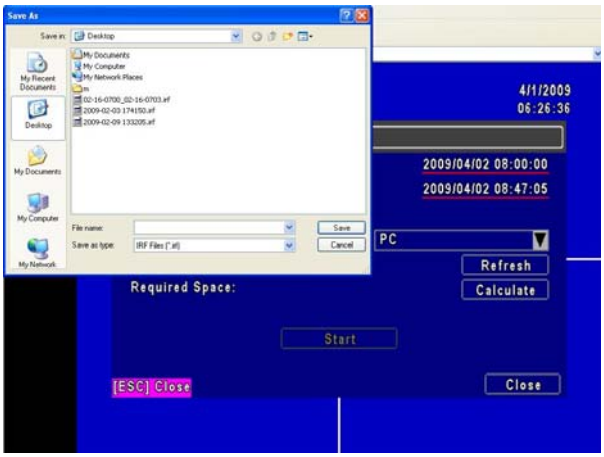
Click Full Screen icon to enlarge the screen to full screen display.

8.2.4 Camera Name



A variety of languages can be used to setup the PC client camera names; and simultaneously changes the display of the local client DVR.

8.2.5 Remote-Site Backup



Select backup function to backup the data to PC.